

# Sun-Earth Day Celebrate the Connection!

www.sunearthday.nasa.gov

## Public Outreach: Make and Take Activities

#### What You'll Need

- Copies of the Sunion handouts (see "Related Websites" for pdf file)
- White Copy Pape
- Blue Copy Paper
- Green Copy Paper
- · Orange Copy Paper
- Yellow Copy Paper
- Red Copy Paper
- (optional) Colored Construction Paper for the background page
- Gluesticks
- Stapler
- Scissors

### Sunion - Paper Model of the Sun

#### **About this Activity**



The Sun is like an onion – it has layers! Create a paper model that demonstrates the layers of the Sun while learning facts about each layer.

Left: The layers of the Sun that are modeled in the Sunion.

Below right: Participant with a finished Sunion.

Print out the following page, either directly on white cardstock (to make the bookmark sturdier) or print on white copy paper, and have the participant glue or paste onto cardstock or manila folders.

#### **Preparation**

Print out the Sunion pdf from the "Full Activity Handouts" link below in the 'Related Websites' section. The first page makes a good sign for your activity table, although it is not necessary. The second and third pages have information on the layers of the Sun which you can laminate or put them into sheet protectors to have a reusable set. The fourth page is instructions which you can tape to your table if you don't have volunteers to man the table. The fifth page is the background for the Sunion, you can have it on regular white copy paper, or copy it onto colored construction paper for a sturdier Sunion. If that is not possible, you can also have the participant paste the handout onto construction paper. The rest of the pages need to be photocopied onto the corresponding colored copy paper (indicated on the handouts).

Optional: Go to the "Today's Sunspots" link in the "Related Websites" section below get a picture of the Sun's photosphere as it looks today and print it out. Participants can draw today's sunspots onto the photosphere layer of their Sunion, and write today's date on it.

#### To Do and Notice

- 1) Show the participants the information pages on the layers of the Sun and have them read them. If the participants are younger, read them out loud.
- 2) Cut out all of the Sun's layers and set aside one of each layer.
- 3) Glue the Corona to the background page (or have the participant glue the background page onto construction paper first, then glue the Corona if you wish).
- 4) Glue the Chromosphere to the center of the Corona.
- 5) Glue the Convection Zone to the center of the Chromosphere.
- 6) Glue the Radiative Zone to the center of the Convection Zone.
- 7) Glue the Core to the center of the Radiative Zone.
- 8) Staple, or glue a corner of, the Photosphere over the Convection Zone so that you can lift up the Photosphere flap to see inside the Sun. The Sunion is now finished!



#### **Activity Notes**

You can extend this activity by having the participants experiment with their UV Detecting Beads by testing various blockers, the shade, etc. Please see the Make and Take Activity called "Exploring Ultraviolet (UV) Light from the Sun" for instructions.

Adapted from Stanford Solar Center Activity "What is Ultraviolet Light?" (see link in Related Websites section below or on next page).

#### **Related Websites**

 ${\bf Sunion - Full\ Activity\ Handouts} \\ http://www.chabotspace.org/vsc/solar/hinode/discovery/resources/sunion/sunion.pdf$ 

Today's Sunspots – Current Image of the Sun

http://umbra.nascom.nasa.gov/images/latest\_mdi\_igram.gif